MYBUILDINGPERMIT.COM EPLAN
SINGLE FAMILY NEW OR STRUCTURE ADDITION APPLICATION CHECKLIST

Prior to submittal, please make sure that all pre-application activity requirements have been completed. Contact the Planning Department at 425-587-3225 with any questions about which processes are required.

Architect's/Engineer's registration stamp must appear on plans and calculations if prepared by such professionals.

Construction of right-of-way improvements along the frontage of the property are required for all new single family residences, and all single family additions with a value greater than $200,000 (value of addition is determined using published Building Valuation Data available at the Building or Public Works Departments. The right-of-way improvements plan must be designed by a licensed civil engineer. These improvements include sidewalks, curbs and gutters, underground storm drainage, planter strip and street trees, and alley paving, among other items. For more information about this requirement, contact the Public Works Department at 425-587-3800.

- ❑ **Plans**

1. City of Kirkland Coversheet

2. Site Plan: An overall site plan (at a scale of 10 feet equals 1 inch) showing the proposed structure in plan view indicating:

- ❑ a) **The property owner's name**, the Assessor's parcel number and the site address.
- ❑ b) **Map Scale and North Arrow**
- ❑ c) **All property lines, easements (utilities, access, etc.), and site dimensions** including bearings and distances. Make a clear distinction between proposed and existing features. Show the distances between buildings and from buildings to all property lines.
- ❑ d) **All streets and alleys, with street names**. Note the nearest cross street. Show all existing and/or proposed driveways including surface materials.
- ❑ e) **Front, side, and rear setbacks** measured from the property lines or vehicular access easements.
- ❑ f) **Location, dimensions and square footage** of all existing and proposed buildings. Make a clear distinction between any existing building and the proposed new construction. Show roof overhangs of existing and proposed buildings. Show any buildings to be demolished.
- ❑ g) **The use of each building** (garage, residence, ADU, shop, etc.).
- ❑ h) **The height of:** fences, decks, retaining walls, rockeries and other similar elements. Retaining walls or rockeries may require a separate building permit.
- ❑ i) **Show existing utilities**, including the locations of sewer, water, electricity and gas lines, and any underground storage tanks, drainfields and reserve drainfield areas.
- ❑ j) **Existing and proposed topography at two-foot contour intervals** in relation to a benchmark within the adjacent public right-of-way. Also show said benchmark, which can be a sewer manhole cover or other fixed point approved by the Planning Department. Indicate finished grade and the elevation of the finished first floor or garage slab. Indicate slopes greater than 15% and the location of any fill areas.
- ❑ k) **Lot coverage and supporting calculations** (area of impervious surfaces) – including all buildings, walkways and driveway. Provide separate subtotals for buildings, driveways/parking areas and walkways/patios.
- ❑ l) **Floor Area Ratios (FAR) (not applicable in Houghton).** Provide calculations by structure (garage, house, shed, etc) and area in square feet by floor (basement, 1st floor, 2nd floor, attic) of existing and proposed structures. FAR calculations must include:
  1) Attic area with five feet or more headroom, and
  2) Any floor area where the top of the supporting members of the ceiling is six feet or more above finished grade, and
  3) Attached garages

4) Accessory structures within 20 feet of the main structure, and
5) Floor area with a ceiling height greater than 16 feet shall be calculated as follows:
   a) The first 100 square feet of such floor area, in aggregate, shall be calculated only once toward allowable FAR; and
   b) Floor area in excess of the first 100 square feet shall be calculated at twice the actual floor area toward allowable FAR.

NOTE: Decks, porches and walkways (covered or uncovered) are excluded from FAR calculations.

- ❑ m) **Tree Retention Plan – Major.** (See handout and checklist). If the property does not have significant trees, please indicate.
- ❑ n) **Creeks, streams, ponds, lakes, or wetlands on or within 100 feet of the subject property. NOTE:** If the Building or Planning official determines that the building site is in an environmentally sensitive area, additional information will be required (e.g., soils report, environmental checklist, hold harmless agreement, special inspection).
- ❑ o) An Erosion and Sedimentation Control (ESC) Plan is required, showing method and location of proposed ESC. You can obtain an example ESC plan from the Public Works Department.
- ❑ p) **Existing improvements within the right-of-way** showing:
  1) Sidewalk
  2) Curb or curb and gutter
  3) Storm drain pipe
  4) Catch basin
  5) Overhead and underground utility lines and power poles
- ❑ q) **Proposed or existing gas, water, electrical, septic, or sewer and storm drainage** locations and where they will connect to the public system in the right-of-way.
- ❑ r) **Existing ground elevations** at midpoint of wall segments and average building elevation calculations (see **Average Building Elevation Calculation** below).

3. Vicinity Plan A copy of an assessor's map, plat map, or a sketch showing a radius of 300 feet on all sides of the project site indicating the following:

- ❑ a) Lot location
- ❑ b) Location of nearest: catch basin, storm drainpipe, ditch curb or curb and gutter, sidewalk
- ❑ c) Pavement width of right-of-way
- ❑ d) Distance from pavement in right-of-way to property line

4. Other Plans DRAWINGS OF THE RESIDENCE (1/4 inch or 1/8 inch scale) showing:

- ❑ a) **Floor Plan:** Floor plan of each floor and basement indicating:
  - ❑ 1) Location of all wall and partitions, door sizes, and window sizes
  - ❑ 2) Location of all permanently installed equipment such as plumbing fixtures, water heaters, furnaces, appliances, and wood stoves
  - ❑ 3) Direction, size, and spacing of all floor and ceiling framing members
- ❑ b) **Elevation Plans:** Elevations of all sides of the building indicating: a) where the average building elevation strikes the residence, b) finished grade, c) existing grade, d) elevation of highest point of roof, e) finished floor elevation of the main floor. (See elevation example below.)
- ❑ c) **Cross-Section Plans:** One cross section through exterior wall showing all details of construction from footing to highest point of roof (see typical cross section example). Submit a cross section of attic area utilizing trusses.
- ❑ d) **Foundation Plans:** Foundation plans indicating a) underfloor ventilation, b) access in framing, c) full dimensions of footings and walls, d) foundation steel (number and size of reinforcement);
- ❑ e) **Truss Layout Diagram:** Truss Layout diagram indicating a) the location of trusses and b) manufacturer being used;
- ❑ f) **Details:** Details indicating a) stairways, b) guardrails around balconies, etc., c) cantilevered beams, floor, or ceiling joists; submit calculations for cantilever situations.

❑ **Structural Engineering Calculations** - If the structure does not meet the conventional light frame construction provisions contained in The International Residential Code Section R301, then the structure must have a lateral-force-resisting designed by a Washington State Registered Structural Engineer. Structural engineering calculations must be submitted and all necessary design details must be incorporated into the plans. The Engineered plans and/or calculations must be signed by the Engineer.

❑ **Plumbing Fixtures Worksheet**

❑ **Rodent Abatement Declaration**

❑ **Rodent Abatement Letter (submit prior to issuance)**

❑ **BUILDING HEIGHT TABLE (Building Height Verification Form)**

❑ **Washington State Energy Code Compliance Forms**
Forms at: http://www.energy.wsu.edu/BuildingEfficiency/EnergyCode

❑ **Geotechnical Report**, also called a Soils report. If the Building or Planning official determines that the building site is in an environmentally sensitive area, additional information will be required (e.g., soils report, environmental checklist, hold harmless agreement, special inspection).

❑ **Stormwater Drainage Report/TIR.**
A hard copy and an electronic copy (pdf) of the Drainage Report/TIR are required for projects meeting the requirements for Small Project Type II, Targeted, and Full Drainage Reviews. Use the appropriate drainage report template depending on the project size and scope; the templates are available at the PW counter or in the FAQ section at: http://www.ci.kirkland.wa.us/depart/Public_Works/Storm___Surface_Water/Stormwater_Update.htm

❑ **Stormwater Low Impact Development Feasibility Evaluation Worksheet.**
This worksheet is required for all projects meeting the requirements for Small Project Type II, Targeted, and Full Drainage Reviews. The worksheet will help define the drainage design parameters for the project. The form is in Policy L-1 of the PW Pre-Approved Plans, and is available in the permit application packet, at the PW counter, or at: http://www.ci.kirkland.wa.us/depart/Public_Works/Development/Pre-Approved_Plans/LID_Storm_Facilities.htm
Note: The applicant must evaluate the site drainage, complete the Feasibility Worksheet, and present it with the building plans at intake, or the plans will not be accepted.

❑ **A Water Availability form by the Water District if Other Than City of Kirkland**

❑ **A Sewer Availability form by the Sewer District if Other Than City of Kirkland**

❑ **A Septic System Approval by King County Health Department if Not Served by Sewer**

❑ **Average Building Elevation (ABE) Calculation (to be included on the site plan)**

No part of a structure may exceed the maximum height above "Average Building Elevation" specified in the applicable use zone section of the Zoning Code except for minor elements of a structure as specified in Zoning Code Section 5.10.045 **defines Average Building Elevation as:**

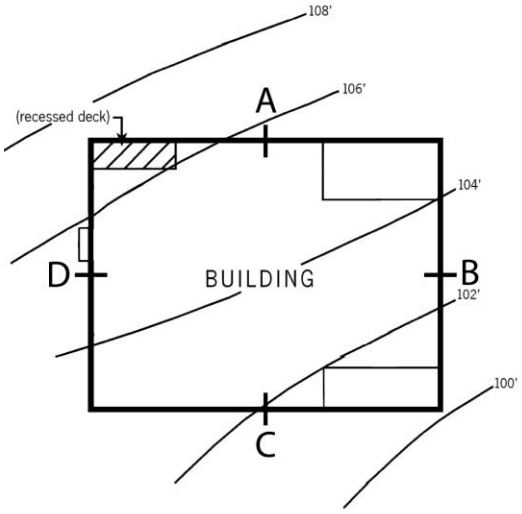
"The weighted average elevation of the topography, prior to any development activity, either (1) under the footprint of a building as measured by delineating the smallest rectangle which can enclose the building footprint and then averaging the elevations taken at the midpoint of each side of the rectangle, or (2) at the center of all exterior walls of a building or structure."

Contact the Planning Department at 425-587-3225 for details. When a building or structure contains townhouses or other attached but otherwise independent building units the average building elevation is calculated separately for each unit.

Average Building Elevation Formula

Option 1

$$\frac{\text{(Midpoint Elevations) x (Length of Wall Segments)}}{\text{(Total Length of Wall Segments)}}$$



Calculating Average Building Elevation

$$\frac{(A \times a) + (B \times b) + (C \times c) + (D \times d)}{a + b + c + d} = \text{Average Building Elevation (ABE)}$$

Where A, B, C, D...= Existing Ground Elevation at Midpoint of Rectangle Segment*
And a, b, c, d…= Length of Rectangle Segment

CALCULATION EXAMPLE:

Midpoint Elevation	**Rectangle Segment Length**
A = 105.6	a = 47'
B = 102.5	b = 40'
C = 101.9	c = 47'
D = 105.2	d = 40'

$$\frac{(105.6)(47)+(102.5)(40)+(101.9)(47)+(105.40)}{47 + 40 + 47 + 40} = \frac{18{,}060.5}{174} = 103.80 \text{ ABE}$$

Notes:

1) Rectangle shall not include those items allowed to extend into required yards through KZC 115.115(3)(d).
2) Include portion of the structure that are covered by roof in the ABE calculation even if they do not have walls. Cantilevered portions enclosing interior space must be included in the ABE calculation.
3) Sections of the structure that are below the existing grade and do not have a wall that extends above the existing grade, are not used in the ABE calculation. Building wall segments more than 4' in height above finished grade and enclosing interior space are included in the ABE calculation.
4) For additions, you must provide an average building elevation calculation for the entire structure.
5) Vents & chimneys may exceed the maximum height (for detached dwelling units)

Elevation Example of ABE